

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A sulfonyl derivative represented by the following formula (I):



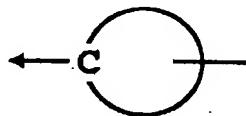
wherein  $Q^1$  represents a substituted or unsubstituted saturated or substituted or unsubstituted unsaturated 5- or 6-membered cyclic hydrocarbon group, ~~which may have a substituent~~, a substituted or unsubstituted saturated or substituted or unsubstituted unsaturated 5- or 6-membered heterocyclic group, ~~which may have a substituent~~, a substituted or unsubstituted saturated or substituted or unsubstituted unsaturated dicyclic fused ring group, ~~which may have a substituent~~ or a saturated or unsaturated tricyclic fused ring group ~~which may have a substituent~~;

$Q_2$  represents a single bond, an oxygen atom, a sulfur atom, a linear or branched C<sub>1-6</sub> alkylene group, a linear or branched C<sub>2-6</sub> alkenylene group, a linear or branched C<sub>2-6</sub> alkynylene group,

a group -N(R<sup>1</sup>)-CO- (in which R<sup>1</sup> represents a hydrogen atom or an alkyl group),

a group -N(R<sup>2</sup>)-(CH<sub>2</sub>)<sub>m</sub>- (in which R<sup>2</sup> represents a hydrogen atom or an alkyl group

and m stands for an integer of 0 to 6), or a group of the following formula:

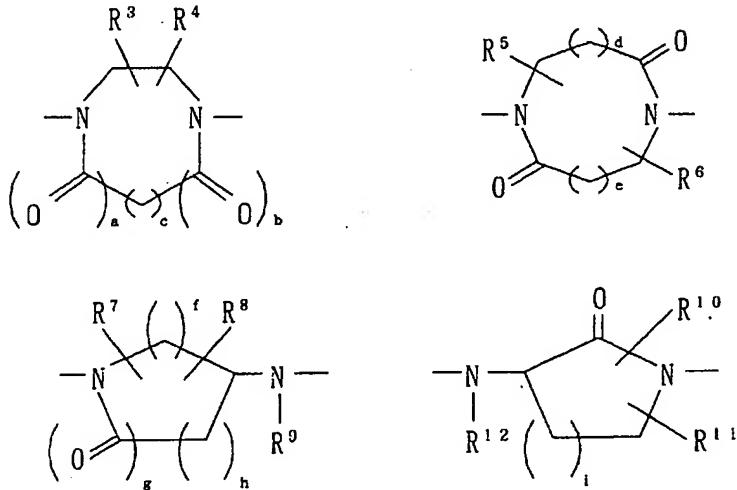


(which represents a divalent, substituted or unsubstituted saturated or substituted or unsubstituted unsaturated 5 or 6-membered cyclic hydrocarbon group ~~which may have a substituent~~,

a divalent, saturated substituted or unsubstituted or unsaturated substituted or unsubstituted 5- or 6-membered heterocyclic group, ~~which may have a substituent~~, or a

divalent, substituted or unsubstituted saturated or substituted or unsubstituted unsaturated dicyclic fused ring group, which may have a substituent and wherein  $\leftarrow$  C means the bonding of the carbon atom of this group to Q<sup>1</sup>),

Q<sup>3</sup> represents any one of the following groups:



(in which, when the carbon atom to which each of R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup>, R<sup>6</sup>, R<sup>7</sup>, R<sup>8</sup>, R<sup>10</sup> and R<sup>11</sup> has been bonded is not adjacent to a nitrogen atom, R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup>, R<sup>6</sup>, R<sup>7</sup>, R<sup>8</sup>, R<sup>10</sup> and R<sup>11</sup> each independently represents a hydrogen atom,

a hydroxyl group,

an alkyl group,

an alkoxy group,

an alkoxyalkyl group,

an alkoxyalkyloxy group,

a hydroxyalkyl group,

a hydroxyalkyloxy group,

a hydroxyalkylcarbonyl group,

a hydroxyalkylsulfonyl group,

a formyl group,

a formylalkyl group,

a formylalkylcarbonyl group,

a formylalkylsulfonyl group,

an alkylcarbonyl group,

an alkylsulfonyl group,

an alkylcarbonylalkyl group,

an alkylsulfonylalkyl group,

a carboxyl group,

a carboxyalkyl group,

a carboxyalkyloxy group,

a carboxyalkylcarbonyl group,

a carboxyalkylsulfonyl group,

a carboxyalkylcarbonylalkyl group,

a carboxyalkylsulfonylalkyl group,

an alkoxycarbonyl group,

an alkoxycarbonylalkyl group,

an alkoxycarbonylalkyloxy group,

an alkoxycarbonylalkylcarbonyl group,

an alkoxycarbonylalkylcarbonyl group,

~~an a substituted or unsubstituted amino group, which may have one or two~~

~~substituents,~~

~~an a substituted or unsubstituted aminoalkyl group which may have, at the wherein substitutions occur at the amino moiety thereof, one or two substituents,~~

~~an a substituted or unsubstituted aminoalkyloxy group which may have, at the wherein substitution occurs at the amino moiety thereof, one or two substituents,~~

an a substituted or unsubstituted aminoalkylcarbonyl group, which may have,  
wherein substitution occurs at the amino moiety thereof, one or two substituents,  
an a substituted or unsubstituted aminoalkylcarbonyloxy group, which may have,  
wherein substitution occurs at the amino moiety thereof, ~~one or two substituents~~,  
an a substituted or unsubstituted aminocarbonyl group, which may have, wherein  
substitution occurs at the amino moiety thereof, ~~one or two substituents~~,  
an a substituted or unsubstituted aminocarbonylalkyl group, which may have, wherein  
substitution occurs at the amino moiety thereof, ~~one or two substituents~~,  
an a substituted or unsubstituted aminocarbonylalkyloxy group, which may have,  
wherein substitution occurs at the amino moiety thereof, ~~one or two substituents~~,  
an a substituted or unsubstituted alkylsulfonylaminocarbonylalkyl group, which may  
have, wherein substitution occurs at the amino moiety thereof, ~~one substituent~~,  
an a substituted or unsubstituted arylsulfonylaminocarbonyl group, which may have,  
wherein substitution occurs at the amino moiety thereof, ~~one substituent~~,  
an a substituted or unsubstituted aminosulfonylalkyl group, which may have, wherein  
substitution occurs at the amino moiety thereof, ~~one or two substituents~~,  
a cyanoalkyl group,  
an a substituted or unsubstituted alkoxyalkylaminocarbonylalkyl group, which may  
have, wherein substitution occurs at the amino moiety thereof, ~~one substituent~~, or  
a group A<sup>1</sup>-B<sup>1</sup>- (in which A<sup>1</sup> represents a substituted or unsubstituted saturated or  
substituted or unsubstituted unsaturated 5- or 6-membered cyclic hydrocarbon group which  
may have a substituent or a substituted or unsubstituted saturated or substituted or  
unsubstituted unsaturated 5- or 6-membered heterocyclic group which may have a substituent  
and B<sup>1</sup> represents a single bond, a carbonyl group, an alkylene group, a carbonylalkyl group,

a group -O-C<sub>1-6</sub> alkylene, a group -COO-C<sub>1-6</sub> alkylene, a group -NHCO- or a group -NHCO-(C<sub>1-6</sub> alkylene) group),

when the carbon atom to which each of R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup>, R<sup>6</sup>, R<sup>7</sup>, R<sup>8</sup>, R<sup>10</sup> and R<sup>11</sup> has been bonded is adjacent to a nitrogen atom, R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup>, R<sup>6</sup>, R<sup>7</sup>, R<sup>8</sup>, R<sup>10</sup> and R<sup>11</sup> each independently represents

- a hydrogen atom,
- an alkyl group,
- a hydroxyalkyl group,
- a hydroxyalkylcarbonyl group,
- a hydroxyalkylsulfonyl group,
- a formyl group,
- a formylalkyl group,
- a formylalkylcarbonyl group,
- a formylalkylsulfonyl group,
- an alkylcarbonyl group,
- an alkylsulfonyl group,
- an alkylcarbonylalkyl group,
- an alkylsulfonylalkyl group,
- a carboxyl group,
- a carboxyalkyl group,
- a carboxyalkylcarbonyl group,
- a carboxyalkylsulfonyl group,
- a carboxyalkylcarbonylalkyl group,
- a carboxyalkylsulfonylalkyl group,
- an alkoxyalkyl group,

an alkoxycarbonyl group,

an alkoxycarbonylalkyl group,

an alkoxycarbonylalkylcarbonyl group,

an alkoxycarbonylalkylsulfonyl group,

an a substituted or unsubstituted aminoalkyl group which may have, wherein

substitution occurs at the amino moiety thereof, one or two substituents,

an a substituted or unsubstituted aminoalkylcarbonyl group, which may have, wherein  
substitution occurs at the amino moiety thereof, one or two substituents,

an a substituted or unsubstituted aminocarbonyl group, which may have, wherein  
substitution occurs at the amino moiety thereof, one or two substituents,

an a substituted or unsubstituted aminocarbonylalkyl group, which may have, wherein  
substitution occurs at the amino moiety thereof, one or two substituents,

an a substituted or unsubstituted alkylsulfonylaminocarbonylalkyl group, which may  
have, wherein substitution occurs at the amino moiety thereof, one substituent,

an a substituted or unsubstituted arylsulfonylaminocarbonyl group, which may have,  
wherein substitution occurs at the amino moiety thereof, one substituent,

an a substituted or unsubstituted aminosulfonylalkyl group, which may have, wherein  
substitution occurs at the amino moiety thereof, one or two substituents,

a cyanoalkyl group,

an a substituted or unsubstituted alkoxyalkylaminocarbonylalkyl group, which may  
have, wherein substitution occurs at the amino moiety thereof, one substituent,

an alkylcarbonyloxyalkyl group, or

a group A<sup>2</sup>-B<sup>2</sup>- (in which A<sup>2</sup> represents a substituted or unsubstituted saturated or  
substituted or unsubstituted unsaturated 5- or 6-membered cyclic hydrocarbon group which  
may have a substituent or a saturated or unsaturated 5- or 6-membered heterocyclic group

which may have a substituent, and B<sup>2</sup> represents a single bond, a carbonyl group, an alkylene group, a carbonylalkyl group, a group -O- C<sub>1-6</sub> alkylene group, a group -COO-C<sub>1-6</sub> alkylene group, a group -NHCO- or a group -NHCO-C<sub>1-6</sub> alkylene group),

each of R<sup>3</sup> and R<sup>4</sup>, R<sup>5</sup> and R<sup>6</sup>, R<sup>7</sup> and R<sup>8</sup>, and R<sup>10</sup> and R<sup>11</sup> may be coupled together with a carbon atom which constitutes the ring and represent a substituted or unsubstituted saturated or substituted or unsubstituted unsaturated 5- to 7-membered cyclic hydrocarbon group ~~which may have a substituent~~ or a saturated or substituted or unsubstituted unsaturated 5- to 7-membered heterocyclic group ~~which may have a substituent~~, R<sup>9</sup> and R<sup>12</sup> each independently represents:

- a hydrogen atom,
- an alkyl group,
- a hydroxyalkyl group,
- a hydroxyalkylcarbonyl group,
- a hydroxyalkylsulfonyl group,
- an alkoxy group,
- an alkoxyalkyl group,
- an alkoxyalkylcarbonyl group,
- an alkoxyalkylsulfonyl group,
- a formyl group,
- a formylalkyl group,
- a formylalkylcarbonyl group,
- a formylalkylsulfonyl group,
- an alkylcarbonyl group,
- an alkylcarbonylalkyl group,
- an alkylsulfonyl group,

an alkylsulfonylalkyl group,  
a carboxyalkyl group,  
a carboxyalkylcarbonyl group,  
a carboxyalkylsulfonyl group,  
a carboxyalkylcarbonylalkyl group,  
a carboxyalkylsulfonylalkyl group,  
an alkoxycarbonyl group,  
an alkoxycarbonylalkyl group,  
an alkoxycarbonylalkylcarbonyl group,  
an alkoxycarbonylalkylsulfonyl group,  
~~an a substituted amino group which may have having~~ one or two substituents,  
~~an a substituted or unsubstituted aminoalkyl group which may have, wherein~~  
substitution occurs, at the amino moiety thereof, ~~one or two substituents~~,  
~~an a substituted or unsubstituted aminoalkyloxy group which may have wherein~~  
substitution occurs, at the amino moiety thereof, ~~one or two substituents~~,  
~~an a substituted or unsubstituted aminoalkylcarbonyl group which may have wherein~~  
substitution occurs, at the amino moiety thereof, ~~one or two substituents~~,  
~~an a substituted or unsubstituted aminoalkyloxycarbonyl group which may have~~  
wherein substitution occurs, at the amino moiety thereof, ~~one or two substituents~~,  
~~an a substituted or unsubstituted aminocarbonyl group which may have wherein~~  
substitution occurs, at the amino moiety thereof, ~~one or two substituents~~,  
~~an a substituted or unsubstituted aminocarbonylalkyl group which may have wherein~~  
substitution occurs, at the amino moiety thereof, ~~one or two substituents~~,  
~~an a substituted or unsubstituted aminocarbonyloxyalkyl group which may have~~  
wherein substitution occurs, at the amino moiety thereof, ~~one or two substituents~~,

an a substituted or unsubstituted alkylsulfonylaminocarbonylalkyl group which may have wherein substitution occurs, at the amino moiety thereof, ~~one substituent~~,

an a substituted or unsubstituted arylsulfonylaminocarbonyl group which may have wherein substitution occurs, at the amino moiety thereof, ~~one substituent~~,

an a substituted or unsubstituted aminosulfonylalkyl group which may have wherein substitution occurs, at the amino moiety thereof, ~~one or two substituents~~,

a cyanoalkyl group, or

an a substituted or unsubstituted alkoxyalkylaminocarbonylalkyl group which may have wherein substitution occurs, at the amino moiety thereof, ~~one substituent~~,

R<sup>9</sup> and R<sup>7</sup> or R<sup>8</sup> may be coupled together with a carbon atom constituting the ring and a nitrogen atom to which R<sup>9</sup> has been bonded and represent a substituted or unsubstituted saturated or substituted or unsubstituted unsaturated 5- to 7-membered heterocyclic group which may have a substituent,

R<sup>12</sup> and R<sup>10</sup> or R<sup>11</sup> may be coupled together with a carbon atom constituting the ring and a nitrogen atom to which R<sup>12</sup> has been bonded and represent a substituted or unsubstituted saturated or substituted or unsubstituted unsaturated 5- to 7-membered heterocyclic group, which may have a substituent,

a, b, d, e and g each independently stands for an integer of 0 or 1, c stands for an integer of 0, 1, or 3, c stands for an integer 2 when a equals 0 and b equals 1 or when a equals 1 and b equals 0; and f, h and i each independently represents an integer of 1 to 3, with the proviso that the sum of a, b and c stands for an integer of 2 or 3, the sum of d and e stands for an integer of 0 or 1 and the sum of f, g and h stands for an integer of 3 to 5),

Q<sup>A</sup> represents an a substituted or unsubstituted arylalkenyl group which may have a substituent, a substituted or unsubstituted heteroarylalkenyl group which may have a substituent, a saturated or unsaturated dicyclic fused ring group which may have a

substituent, a substituted or unsubstituted saturated or substituted or unsubstituted unsaturated tricyclic fused ring group ~~which may have a substituent~~, a group Ar-C(H)=N- (in which, Ar represents ~~an~~ a substituted or unsubstituted aryl group ~~which may have a substituent~~), or a group HetC(H)=N- (in which, Het represents a heteroaryl group ~~which may have a substituent~~), and

T<sup>1</sup> represents a carbonyl group,

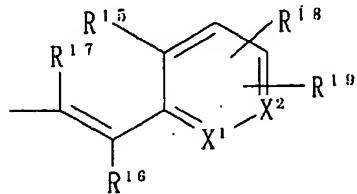
a group -CH (R<sup>13</sup>)-

(in which R<sup>13</sup> represents a hydrogen atom, an alkyl group, a hydroxyalkyl group having ~~the~~ a protected or unprotected hydroxyl group ~~which may be protected~~, an alkoxyalkyl group, a carboxyalkyl group, an alkoxy carbonylalkyl group, an aryl group, an aralkyl group, a heteroaryl group, a heteroarylalkyl group or ~~an~~ a substituted or unsubstituted aminoalkyl group ~~which may have~~ wherein substitution occurs, at the amino moiety thereof, a ~~substituent~~ (~~protecting group~~)), or

a group -C (=NOR<sup>14</sup>)- or -C(=N-NHR<sup>14'</sup>)-

(in which R<sup>14</sup> and R<sup>14'</sup> independently represent a hydrogen atom, an alkyl group, a carboxyalkyl group, an alkoxy carbonyl group, an aryl group, an aralkyl group, a heteroaryl group, a heteroarylalkyl group or an aminoalkyl group which may have, at the amino moiety thereof, a substituent), or salt thereof; or a solvate thereof.

Claim 2 (Currently Amended): A sulfonyl derivative according to claim 1, wherein in the formula (I), Q<sup>A</sup> represents any one of the following groups:



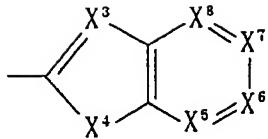
wherein R<sup>15</sup> represents a hydrogen atom, a hydroxyl group, a nitro group, a cyano group, a halogen atom, an alkyl group, a hydroxyalkyl group, an alkoxy group, an alkoxyalkyl group, a carboxyl group, a carboxyalkyl group, an alkylcarbonyl group, an alkoxy carbonyl group, an alkoxy carbonylalkyl group, an alkylcarbonyloxy group or a group A<sup>3</sup>-B<sup>3</sup>-

(wherein A<sup>3</sup> represents an amino group ~~which may have~~ having one or two substituents, a substituted or unsubstituted saturated or substituted or unsubstituted unsaturated 5- or 6-membered cyclic hydrocarbon group ~~which may have a substituent~~ or a substituted or unsubstituted saturated or substituted or unsubstituted unsaturated 5- or 6-membered heterocyclic group ~~which may have a substituent~~ and B<sup>3</sup> represents a single bond, a carbonyl group, an alkylene group, a carbonylalkyl group, a carbonylalkyloxy group or an alkylene carbonyloxy group),

R<sup>16</sup> and R<sup>17</sup> each independently represents a hydrogen atom, a halogen atom, an alkyl group, a hydroxyalkyl group having a protected or unprotected hydroxyl group ~~which may be protected~~ or an alkoxyalkyl group, or R<sup>16</sup> or R<sup>17</sup> may be coupled together with R<sup>15</sup> and represent a C<sub>1-3</sub> alkylene or alkenylene group,

R<sup>18</sup> and R<sup>19</sup> each independently represents a hydrogen atom, a hydroxyl group, a halogen atom, a halogenoalkyl group, an alkyl group, an alkoxy group, an alkenyl group, an alkynyl group ~~which may be substituted by an alkylsilyl group as a protecting group~~ an alkynyl group having an alkylsilyl group, a trifluoromethyl group, a cyano group, an amino group, an aminoalkyl group, an alkylaminoalkyl group, an amidino group, a hydroxyamidino group or an alkoxy carbonylamidino group, with the proviso that R<sup>18</sup> and R<sup>19</sup> do not represent a hydrogen atom at the same time), and

X<sup>1</sup> and X<sup>2</sup> each independently represents a methine group or a nitrogen atom[[.]]



wherein  $X^3$  represents a nitrogen atom, or

a group  $=C(R^{100})$

(wherein  $R^{100}$  represents a hydrogen atom, a halogen atom, an alkyl group, an alkoxy carbonyl group, an aralkyloxy carbonylalkyl group, an alkoxy carbonylalkyl group, a nitro group, ~~an a protected or unprotected~~ amino group which may have a protecting group or ~~an a protected or unprotected~~ aminoalkyl group ~~which may have, at the amino moiety thereof, a protecting group~~),

$X^4$  represents an oxygen atom, a sulfur atom or a group  $-N(R^{101})-$

(wherein  $R^{101}$  means a hydrogen atom, an alkyl group, an alkoxy carbonyl group, an aralkyloxy carbonyl group, an alkoxy carbonylalkyl group, an alkylsulfonyl group or an arylsulfonyl group),

$X^5$  and  $X^8$  each independently represents a nitrogen atom or

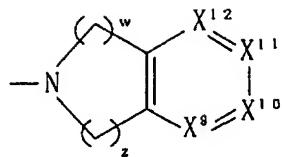
a group  $-C(R^{102})-$

(wherein  $R^{102}$  represents a hydrogen atom or a halogen atom),

$X^6$  and  $X^7$  each independently represents a nitrogen atom or

a group  $-C(R^{103})-$

(wherein  $R^{103}$  represents a hydrogen atom, a hydroxyl group, a halogen atom, a halogenoalkyl group, an alkyl group, an alkoxy group, an alkenyl group, an alkynyl group which may be substituted by an alkylsilyl group as a protecting group, a cyano group, an amino group, an aminoalkyl group, an alkylaminoalkyl group, an amidino group, a hydroxyamidino group or an alkoxy carbonylamidino group)[[.]])



wherein X<sup>9</sup> and X<sup>12</sup> each independently represents a nitrogen atom or

a group -C(R<sup>104</sup>)-

(wherein R<sup>104</sup> represents a hydrogen atom or a halogen atom),

X<sup>10</sup> and X<sup>11</sup> each independently represents a nitrogen atom or

a group -C(R<sup>105</sup>)-

(wherein R<sup>105</sup> represents a hydrogen atom, a hydroxyl group, a halogen atom, a

halogenoalkyl group, an alkyl group, an alkoxy group, an alkenyl group, an alkynyl group

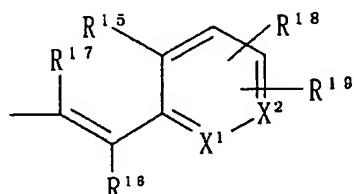
which may be substituted by an alkylsilyl group as a protecting group, a cyano group, an

amino group, an aminoalkyl group, an alkylaminoalkyl group, an amidino group, a

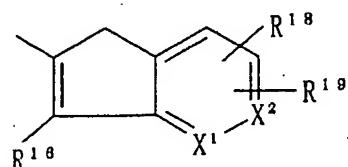
hydroxyamidino group or an alkoxy carbonylamidino group, and

w and z each independently represents an integer of 1 or 2, or salt thereof; or a solvate thereof.

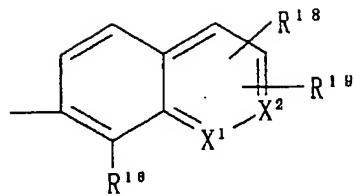
**Claim 3 (Previously Presented):** A sulfonyl derivative according to claim 2, wherein in the formula (I), the group:



means the following group:



or



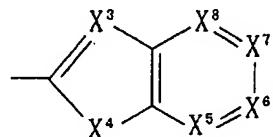
in the above formulas, R<sup>16</sup>, R<sup>18</sup>, R<sup>19</sup>, X<sup>1</sup> and X<sup>2</sup> have the same meanings as defined above, or salt thereof; or a solvate thereof.

Claim 4 (Previously Presented): A sulfonyl derivative according to claim 2, wherein

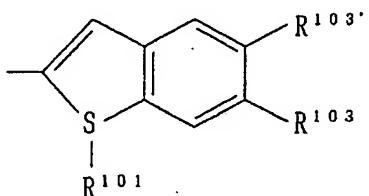
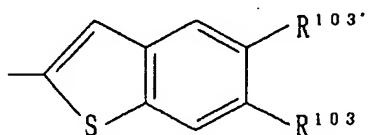
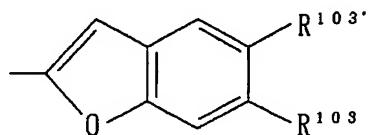
R<sup>18</sup> represents a halogen atom or an ethynyl group, or salt thereof; or a solvate thereof.

Claim 5 (Previously Presented): A sulfonyl derivative according to claim 2, wherein

in the formula (I), the group:



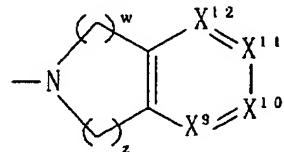
means any one of the following groups:



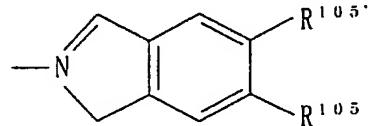
in the above formulas, R<sup>101</sup> and R<sup>103</sup> have the same meanings as defined above and R<sup>103'</sup> represents similar atoms or groups to R<sup>103</sup>, or salt thereof; or a solvate thereof.

**Claim 6 (Original):** A sulfonyl derivative according to claim 5, wherein either one of R<sup>103</sup> and R<sup>103'</sup> represents a halogen atom or an ethynyl group, or salt thereof; or a solvate thereof.

**Claim 7 (Previously Presented):** A sulfonyl derivative according to claim 2, wherein in the formula (I), the group:



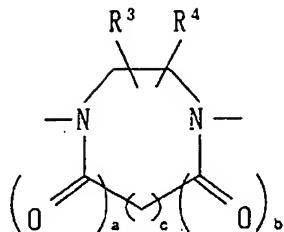
represents the following group:



wherein R<sup>105</sup> has the same meaning as defined above and R<sup>105'</sup> represents similar atoms or groups to R<sup>105</sup>, or salt thereof; or a solvate thereof.

**Claim 8 (Original):** A sulfonyl derivative according to claim 7, wherein either one of R<sup>105</sup> or R<sup>105'</sup> represents a halogen atom or an ethynyl group, or salt thereof; or a solvate thereof.

**Claim 9 (Previously Presented):** A sulfonyl derivative according to claim 1, wherein Q<sup>3</sup> represents the group:



wherein R<sup>3</sup>, R<sup>4</sup>, a, b and c have the same meanings as defined above or salt thereof; or a solvate thereof.

Claim 10 (Previously Presented): A sulfonyl derivative according to claim 1, wherein T<sup>1</sup> represents a carbonyl group or a group -CH (R<sup>13</sup>) - (wherein R<sup>13</sup> has the same meaning as defined above).

Claim 11 (Currently Amended): A sulfonyl derivative according to claim 1, wherein Q<sup>1</sup> represents a cyclopentyl group ~~which may have a substituent, a substituted or unsubstituted~~ cyclohexyl group ~~which may have a substituent, a substituted or unsubstituted~~ cyclopentenyl group ~~which may have a substituent, a substituted or unsubstituted~~ cyclohexenyl group ~~which may have a substituent, a substituted or unsubstituted~~ phenyl group ~~which may have a substituent, a substituted or unsubstituted~~ pyrrolidinyl group ~~which may have a substituent, a substituted or unsubstituted~~ piperidinyl group ~~which may have a substituent, a substituted or unsubstituted~~ imidazolyl group ~~which may have a substituent, a substituted or unsubstituted~~ thiazolyl group ~~which may have a substituent, a substituted or unsubstituted~~ thiadiazolyl group ~~which may have a substituent, a substituted or unsubstituted~~ pyridyl group ~~which may have a substituent, a substituted or unsubstituted~~ pyrimidinyl group ~~which may have a substituent, a substituted or unsubstituted~~ pyridazinyl group ~~which may have a substituent, a substituted or unsubstituted~~ thiazolydiny group ~~which may have a substituent, a substituted or unsubstituted~~ morpholinyl group ~~which may have a substituent, a substituted or unsubstituted~~

substituted or unsubstituted piperazinyl group which may have a substituent, a substituted or unsubstituted thiomorpholinyl group which may have a substituent, a substituted or unsubstituted pyrrolyl group which may have a substituent, a substituted or unsubstituted thiienyl group which may have a substituent, a substituted or unsubstituted furanyl group which may have a substituent, a substituted or unsubstituted tetrahydropyrimidinyl group which may have a substituent, a substituted or unsubstituted tetrahydrofuryl group which may have a substituent, a substituted or unsubstituted tetrahydrothienyl group which may have a substituent, a substituted or unsubstituted sulforanyl group which may have a substituent, a substituted or unsubstituted imidazolinyl group which may have a substituent, a substituted or unsubstituted thiazolinyl group which may have a substituent, a substituted or unsubstituted oxazolyl group which may have a substituent, a substituted or unsubstituted oxadiazinyl group which may have a substituent, a substituted or unsubstituted triazinyl group which may have a substituent, a substituted or unsubstituted tetrazinyl group which may have a substituent, a substituted or unsubstituted pyrazinyl group which may have a substituent, a substituted or unsubstituted pyrazolyl group which may have a substituent, a substituted or unsubstituted pyrazolinyl group which may have a substituent, a substituted or unsubstituted pyrazolidinyl group which may have a substituent, a substituted or unsubstituted thienopyridyl group which may have a substituent, a substituted or unsubstituted tetrahydrothienopyridyl group which may have a substituent, a substituted or unsubstituted thiazolopyridyl group which may have a substituent, a substituted or unsubstituted tetrahydروthiazolopyridyl group which may have a substituent, a substituted or unsubstituted pyranothiazolyl group which may have a substituent, a substituted or unsubstituted dihydropyranothiazolyl group which may have a substituent, a substituted or unsubstituted thiazolopyridadinyl group which may have a substituent, a substituted or unsubstituted tetrahydrothiazolopyridadinyl group which may have a substituent, a

substituted or unsubstituted furopyridyl group which may have a substituent, a substituted or unsubstituted tetrahydrofuropyridyl group which may have a substituent, a substituted or unsubstituted oxazolopyridyl group which may have a substituent, and a substituted or unsubstituted tetrahydrooxazolopyridyl group which may have a substituent.

Claims 12-16 (Canceled).

Claim 17 (Original): A pharmaceutical composition comprising a sulfonyl derivative or salt thereof, or a solvent thereof as claimed in any one of claims 1 to 11, and a pharmaceutically acceptable carrier.

Claims 18-22 (Cancelled).

Claim 23 (Currently Amended): A method for ~~treating diseases caused by reducing the activity of~~ an activated coagulation factor X, which comprises administering ~~a~~ an effective amount of the sulfonyl derivative, or salt thereof, or ~~a~~ the solvate thereof as claimed in any one of claims 1 to 11 to a subject.

Claim 24 (Currently Amended): A treating method for coagulation inhibition, which comprises administering ~~a~~ an effective amount of the sulfonyl derivative, or salt thereof, or ~~a~~ the solvate thereof as claimed in any one of claims 1 to 11 to a subject.

Claim 25 (Currently Amended): A treating method of thrombosis ~~or embolism~~, which comprises administering ~~a~~ an effective amount of the sulfonyl derivative, or salt thereof, or ~~a~~ the solvate thereof as claimed in any one of claims 1 to 11 to a subject.

Claim 26 (Currently Amended): A treating method for treating a condition selected from the group consisting of cerebral infarction, cerebral embolism, myocardial infarction, pulmonary infarction, pulmonary embolism, Buerger's disease, deep vein thrombosis, disseminated intravascular coagulation syndrome, thrombus formation after valve replacement, reocclusion after revascularization, formation of thrombus upon extracorporeal circulation ~~or~~ and coagulation upon blood collection, which comprises administering ~~a~~ an effective amount of the sulfonyl derivative, or salt thereof, or a the solvate thereof as claimed in any one of claims 1 to 11 to a subject.

DISCUSSION OF THE AMENDMENT

Claims 1-17 and 23-26 are pending. Claims 1-2, 11 and 23-26 are amended. Support for the amendment to these claims is found in the specification and claims as originally filed. Claims 12-16 are canceled. Upon entry of the amendment Claims 1-11, 17, and 23-26 will be active.

No new matter is believed to be added upon entry of the amendment.